

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix\Area Sources\2008\2008 Conditions.urb924

Project Name: General Plan Update - 2008 Conditions

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	845.63	138.58	1,945.37	5.56	288.93	278.09	178,304.68

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	845.63	138.58	1,945.37	5.56	288.93	278.09	178,304.68

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## Area Source Unmitigated Detail Report:

## AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	7.91	104.14	55.93	0.00	0.20	0.19	130,796.42
Hearth	342.04	33.59	1,797.25	5.56	288.48	277.66	47,371.50
Landscape	16.51	0.85	92.19	0.00	0.25	0.24	136.76
Consumer Products	369.98						
Architectural Coatings	109.19						
TOTALS (tons/year, unmitigated)	845.63	138.58	1,945.37	5.56	288.93	278.09	178,304.68

Area Source Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix\Area Sources\2008\2008 Conditions.urb924

Project Name: General Plan Update - 2008 Conditions

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2,852.36	580.01	1,330.74	0.06	3.82	3.77	718,212.23

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2,852.36	580.01	1,330.74	0.06	3.82	3.77	718,212.23

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	43.36	570.62	306.46	0.01	1.08	1.06	716,692.70
Hearth - No Summer Emissions							
Landscape	183.44	9.39	1,024.28	0.05	2.74	2.71	1,519.53
Consumer Products	2,027.28						
Architectural Coatings	598.28						
<b>TOTALS (lbs/day, unmitigated)</b>	<b>2,852.36</b>	<b>580.01</b>	<b>1,330.74</b>	<b>0.06</b>	<b>3.82</b>	<b>3.77</b>	<b>718,212.23</b>

Area Source Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix\Area Sources\2008\2008 Conditions.urb924

Project Name: General Plan Update - 2008 Conditions

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	11,003.53	1,545.83	44,208.14	136.66	7,049.76	6,785.72	2,071,199.19

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	11,003.53	1,545.83	44,208.14	136.66	7,049.76	6,785.72	2,071,199.19

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	43.36	570.62	306.46	0.01	1.08	1.06	716,692.70
Hearth	8,334.61	975.21	43,901.68	136.65	7,048.68	6,784.66	1,354,506.49
Landscaping - No Winter Emissions							
Consumer Products	2,027.28						
Architectural Coatings	598.28						
<b>TOTALS (lbs/day, unmitigated)</b>	<b>11,003.53</b>	<b>1,545.83</b>	<b>44,208.14</b>	<b>136.66</b>	<b>7,049.76</b>	<b>6,785.72</b>	<b>2,071,199.19</b>

Area Source Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix\Vehicle Emissions\2008\Vehicle Emissions - 2008.urb924

Project Name: Vehicle Emissions -2008

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	1,137.53	1,586.96	12,330.43	5.28	907.50	184.17	534,016.05

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	1,137.53	1,586.96	12,330.43	5.28	907.50	184.17	534,016.05

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Trips	1,137.53	1,586.96	12,330.43	5.28	907.50	184.17	534,016.05
<b>TOTALS (tons/year, unmitigated)</b>	<b>1,137.53</b>	<b>1,586.96</b>	<b>12,330.43</b>	<b>5.28</b>	<b>907.50</b>	<b>184.17</b>	<b>534,016.05</b>

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2008 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Trips		100.00	unknown	9,802.00	980,200.00	2,842,580.09
					980,200.00	2,842,580.09

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.4	2.5	97.0	0.5
Light Truck < 3750 lbs	19.3	5.2	83.9	10.9
Light Truck 3751-5750 lbs	19.6	2.0	97.0	1.0
Med Truck 5751-8500 lbs	9.4	1.1	97.8	1.1
Lite-Heavy Truck 8501-10,000 lbs	2.5	0.0	64.0	36.0
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	40.0	60.0



Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	1.5	6.7	20.0	73.3
Heavy-Heavy Truck 33,001-60,000 lbs	1.9	0.0	5.3	94.7
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.0	77.5	22.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.2	8.3	75.0	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	2.7	2.7	2.7	2.9	2.9	2.9
Rural Trip Length (miles)	16.8	7.1	7.9	2.9	2.9	2.9
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Trips				0.0	0.0	100.0

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Combined Summer Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix\Vehicle Emissions\2008\Vehicle Emissions - 2008.urb924

Project Name: Vehicle Emissions -2008

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	5,650.40	7,598.77	61,778.55	29.80	4,972.62	1,009.14	3,039,362.09

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	5,650.40	7,598.77	61,778.55	29.80	4,972.62	1,009.14	3,039,362.09

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Trips	5,650.40	7,598.77	61,778.55	29.80	4,972.62	1,009.14	3,039,362.09
TOTALS (lbs/day, unmitigated)	5,650.40	7,598.77	61,778.55	29.80	4,972.62	1,009.14	3,039,362.09

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2008 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Trips		100.00	unknown	9,802.00	980,200.00	2,842,580.09
					980,200.00	2,842,580.09

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.4	2.5	97.0	0.5
Light Truck < 3750 lbs	19.3	5.2	83.9	10.9
Light Truck 3751-5750 lbs	19.6	2.0	97.0	1.0
Med Truck 5751-8500 lbs	9.4	1.1	97.8	1.1
Lite-Heavy Truck 8501-10,000 lbs	2.5	0.0	64.0	36.0
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	40.0	60.0

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	1.5	6.7	20.0	73.3
Heavy-Heavy Truck 33,001-60,000 lbs	1.9	0.0	5.3	94.7
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.0	77.5	22.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.2	8.3	75.0	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	2.7	2.7	2.7	2.9	2.9	2.9
Rural Trip Length (miles)	16.8	7.1	7.9	2.9	2.9	2.9
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Trips				0.0	0.0	100.0

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Combined Winter Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix\Vehicle Emissions\2008\Vehicle Emissions - 2008.urb924

Project Name: Vehicle Emissions -2008

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	7,398.37	10,889.45	79,134.87	27.25	4,972.62	1,009.14	2,699,621.80

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	7,398.37	10,889.45	79,134.87	27.25	4,972.62	1,009.14	2,699,621.80

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## Operational Unmitigated Detail Report:

## OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Trips	7,398.37	10,889.45	79,134.87	27.25	4,972.62	1,009.14	2,699,621.80
<b>TOTALS (lbs/day, unmitigated)</b>	<b>7,398.37</b>	<b>10,889.45</b>	<b>79,134.87</b>	<b>27.25</b>	<b>4,972.62</b>	<b>1,009.14</b>	<b>2,699,621.80</b>

## Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2008 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Trips		100.00	unknown	9,802.00	980,200.00	2,842,580.09
					980,200.00	2,842,580.09

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.4	2.5	97.0	0.5
Light Truck < 3750 lbs	19.3	5.2	83.9	10.9
Light Truck 3751-5750 lbs	19.6	2.0	97.0	1.0
Med Truck 5751-8500 lbs	9.4	1.1	97.8	1.1
Lite-Heavy Truck 8501-10,000 lbs	2.5	0.0	64.0	36.0
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	40.0	60.0

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	1.5	6.7	20.0	73.3
Heavy-Heavy Truck 33,001-60,000 lbs	1.9	0.0	5.3	94.7
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.0	77.5	22.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.2	8.3	75.0	16.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	2.7	2.7	2.7	2.9	2.9	2.9
Rural Trip Length (miles)	16.8	7.1	7.9	2.9	2.9	2.9
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Trips				0.0	0.0	100.0

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Combined Annual Emissions Reports (Tons/Year)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Year 2030 Analysis\Year 2030 - Added.urb924

Project Name: General Plan Update - Year 2030 Conditons

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	290.13	56.69	876.87	2.68	134.21	129.18	73,400.59

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	290.13	56.69	876.87	2.68	134.21	129.18	73,400.59



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## Area Source Unmitigated Detail Report:

## AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	3.06	40.19	21.32	0.00	0.08	0.07	50,519.49
Hearth	90.59	16.12	821.68	2.68	134.04	129.02	22,826.51
Landscape	6.02	0.38	33.87	0.00	0.09	0.09	54.59
Consumer Products	146.21						
Architectural Coatings	44.25						
<b>TOTALS (tons/year, unmitigated)</b>	<b>290.13</b>	<b>56.69</b>	<b>876.87</b>	<b>2.68</b>	<b>134.21</b>	<b>129.18</b>	<b>73,400.59</b>

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 45%

Percentage of residences with wood fireplaces changed from 10% to 0%

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Year 2030 Analysis\Year 2030 - Added.urb924

Project Name: General Plan Update - Year 2030 Conditons

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1,127.31	224.45	493.17	0.02	1.43	1.41	277,425.69

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1,127.31	224.45	493.17	0.02	1.43	1.41	277,425.69

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	16.75	220.19	116.84	0.00	0.42	0.41	276,819.14
Hearth - No Summer Emissions							
Landscape	66.92	4.26	376.33	0.02	1.01	1.00	606.55
Consumer Products	801.16						
Architectural Coatings	242.48						
<b>TOTALS (lbs/day, unmitigated)</b>	<b>1,127.31</b>	<b>224.45</b>	<b>493.17</b>	<b>0.02</b>	<b>1.43</b>	<b>1.41</b>	<b>277,425.69</b>

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 45%

Percentage of residences with wood fireplaces changed from 10% to 0%

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Year 2030 Analysis\Year 2030 - Added.urb924

Project Name: General Plan Update - Year 2030 Conditons

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	3,270.79	674.75	20,183.92	65.78	3,274.72	3,152.06	912,065.90

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	3,270.79	674.75	20,183.92	65.78	3,274.72	3,152.06	912,065.90

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	16.75	220.19	116.84	0.00	0.42	0.41	276,819.14
Hearth	2,210.40	454.56	20,067.08	65.78	3,274.30	3,151.65	635,246.76
Landscaping - No Winter Emissions							
Consumer Products	801.16						
Architectural Coatings	242.48						
<b>TOTALS (lbs/day, unmitigated)</b>	<b>3,270.79</b>	<b>674.75</b>	<b>20,183.92</b>	<b>65.78</b>	<b>3,274.72</b>	<b>3,152.06</b>	<b>912,065.90</b>

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 45%

Percentage of residences with wood fireplaces changed from 10% to 0%

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Year 2030 Analysis\Year 2030 - Existing.urb924

Project Name: General Plan Update - Year 2030 Existing

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	845.30	139.60	1,939.39	5.56	288.91	278.09	179,382.75

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	845.30	139.60	1,939.39	5.56	288.91	278.09	179,382.75

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	7.98	105.04	56.68	0.00	0.20	0.20	131,873.77
Hearth	342.04	33.59	1,797.25	5.56	288.48	277.66	47,371.50
Landscape	15.32	0.97	85.46	0.00	0.23	0.23	137.48
Consumer Products	369.98						
Architectural Coatings	109.98						
<b>TOTALS (tons/year, unmitigated)</b>	<b>845.30</b>	<b>139.60</b>	<b>1,939.39</b>	<b>5.56</b>	<b>288.91</b>	<b>278.09</b>	<b>179,382.75</b>

Area Source Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Year 2030 Analysis\Year 2030 - Existing.urb924

Project Name: General Plan Update - Year 2030 Existing

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2,843.80	586.27	1,260.12	0.05	3.60	3.57	724,123.54

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2,843.80	586.27	1,260.12	0.05	3.60	3.57	724,123.54



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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	43.72	575.54	310.60	0.01	1.08	1.07	722,595.98
Hearth - No Summer Emissions							
Landscape	170.20	10.73	949.52	0.04	2.52	2.50	1,527.56
Consumer Products	2,027.28						
Architectural Coatings	602.60						
TOTALS (lbs/day, unmitigated)	2,843.80	586.27	1,260.12	0.05	3.60	3.57	724,123.54

Area Source Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Year 2030 Analysis\Year 2030 - Existing.urb924

Project Name: General Plan Update - Year 2030 Existing

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	11,008.21	1,550.75	44,212.28	136.66	7,049.76	6,785.73	2,077,102.47

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	11,008.21	1,550.75	44,212.28	136.66	7,049.76	6,785.73	2,077,102.47

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	43.72	575.54	310.60	0.01	1.08	1.07	722,595.98
Hearth	8,334.61	975.21	43,901.68	136.65	7,048.68	6,784.66	1,354,506.49
Landscaping - No Winter Emissions							
Consumer Products	2,027.28						
Architectural Coatings	602.60						
TOTALS (lbs/day, unmitigated)	11,008.21	1,550.75	44,212.28	136.66	7,049.76	6,785.73	2,077,102.47

Area Source Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Vehicle Emissions\2030\Vehicle Emissions - 2030 A.urb924

Project Name: General Plan Update - Vehicle Emissions - 2030

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	324.58	310.52	3,025.19	6.28	1,081.74	205.70	649,111.27

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	324.58	310.52	3,025.19	6.28	1,081.74	205.70	649,111.27

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Trips	324.58	310.52	3,025.19	6.28	1,081.74	205.70	649,111.27
<b>TOTALS (tons/year, unmitigated)</b>	<b>324.58</b>	<b>310.52</b>	<b>3,025.19</b>	<b>6.28</b>	<b>1,081.74</b>	<b>205.70</b>	<b>649,111.27</b>

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Trips		100.00	unknown	12,780.26	1,278,025.98	3,450,670.20
					1,278,025.98	3,450,670.20

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.9	0.0	100.0	0.0
Light Truck < 3750 lbs	19.1	0.0	99.0	1.0
Light Truck 3751-5750 lbs	19.7	0.0	100.0	0.0
Med Truck 5751-8500 lbs	9.3	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	1.6	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.0	32.5	67.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.2	0.0	91.7	8.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	2.7	2.7	2.7	2.7	2.7	2.7
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Trips				2.0	1.0	97.0

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Vehicle Emissions\2030\Vehicle Emissions - 2030 A.urb924

Project Name: General Plan Update - Vehicle Emissions - 2030

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1,676.30	1,487.19	15,425.69	35.63	5,927.33	1,127.14	3,711,513.03

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1,676.30	1,487.19	15,425.69	35.63	5,927.33	1,127.14	3,711,513.03

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Trips	1,676.30	1,487.19	15,425.69	35.63	5,927.33	1,127.14	3,711,513.03
<b>TOTALS (lbs/day, unmitigated)</b>	<b>1,676.30</b>	<b>1,487.19</b>	<b>15,425.69</b>	<b>35.63</b>	<b>5,927.33</b>	<b>1,127.14</b>	<b>3,711,513.03</b>

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Trips		100.00	unknown	12,780.26	1,278,025.98	3,450,670.20
					1,278,025.98	3,450,670.20

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.9	0.0	100.0	0.0
Light Truck < 3750 lbs	19.1	0.0	99.0	1.0
Light Truck 3751-5750 lbs	19.7	0.0	100.0	0.0
Med Truck 5751-8500 lbs	9.3	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4



Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	1.6	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.0	32.5	67.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.2	0.0	91.7	8.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	2.7	2.7	2.7	2.7	2.7	2.7
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Trips				2.0	1.0	97.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Vehicle Emissions\2030\Vehicle Emissions - 2030 A.urb924

Project Name: General Plan Update - Vehicle Emissions - 2030

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1,982.99	2,130.01	18,877.73	32.00	5,927.33	1,127.14	3,247,296.26

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1,982.99	2,130.01	18,877.73	32.00	5,927.33	1,127.14	3,247,296.26

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Trips	1,982.99	2,130.01	18,877.73	32.00	5,927.33	1,127.14	3,247,296.26
<b>TOTALS (lbs/day, unmitigated)</b>	<b>1,982.99</b>	<b>2,130.01</b>	<b>18,877.73</b>	<b>32.00</b>	<b>5,927.33</b>	<b>1,127.14</b>	<b>3,247,296.26</b>

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Trips		100.00	unknown	12,780.26	1,278,025.98	3,450,670.20
					1,278,025.98	3,450,670.20

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.9	0.0	100.0	0.0
Light Truck < 3750 lbs	19.1	0.0	99.0	1.0
Light Truck 3751-5750 lbs	19.7	0.0	100.0	0.0
Med Truck 5751-8500 lbs	9.3	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	1.6	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.0	32.5	67.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.2	0.0	91.7	8.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	2.7	2.7	2.7	2.7	2.7	2.7
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Trips				2.0	1.0	97.0

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Build-Out Analysis\Build-Out Added\Build-Out Added.urb924

Project Name: General Plan Update - Buildout

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	380.65	74.12	1,150.44	3.52	176.16	169.57	96,017.48

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	380.65	74.12	1,150.44	3.52	176.16	169.57	96,017.48

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	3.99	52.47	27.76	0.00	0.10	0.10	65,984.49
Hearth	118.95	21.15	1,078.53	3.52	175.94	169.35	29,961.89
Landscape	7.88	0.50	44.15	0.00	0.12	0.12	71.10
Consumer Products	191.92						
Architectural Coatings	57.91						
<b>TOTALS (tons/year, unmitigated)</b>	<b>380.65</b>	<b>74.12</b>	<b>1,150.44</b>	<b>3.52</b>	<b>176.16</b>	<b>169.57</b>	<b>96,017.48</b>

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 45%

Percentage of residences with wood fireplaces changed from 10%\*to 0%

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Build-Out Analysis\Build-Out Added\Build-Out Added.urb924

Project Name: General Plan Update - Buildout

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1,478.35	293.08	642.72	0.02	1.85	1.84	362,348.92

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1,478.35	293.08	642.72	0.02	1.85	1.84	362,348.92

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	21.87	287.53	152.11	0.00	0.54	0.54	361,558.87
Hearth - No Summer Emissions							
Landscape	87.58	5.55	490.61	0.02	1.31	1.30	790.05
Consumer Products	1,051.60						
Architectural Coatings	317.30						
TOTALS (lbs/day, unmitigated)	1,478.35	293.08	642.72	0.02	1.85	1.84	362,348.92

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 45%

Percentage of residences with wood fireplaces changed from 10% to 0%



Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Build-Out Analysis\Build-Out Added\Build-Out Added.urb924

Project Name: General Plan Update - Buildout

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	4,292.12	884.19	26,492.00	86.35	4,298.36	4,137.37	1,195,379.40

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	4,292.12	884.19	26,492.00	86.35	4,298.36	4,137.37	1,195,379.40

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	21.87	287.53	152.11	0.00	0.54	0.54	361,558.87
Hearth	2,901.35	596.66	26,339.89	86.35	4,297.82	4,136.83	833,820.53
Landscaping - No Winter Emissions							
Consumer Products	1,051.60						
Architectural Coatings	317.30						
TOTALS (lbs/day, unmitigated)	4,292.12	884.19	26,492.00	86.35	4,298.36	4,137.37	1,195,379.40

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 45%

Percentage of residences with wood fireplaces changed from 10% to 0%

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Build-Out Analysis\Build-Out Existing\Build-Out Existing.urb924

Project Name: General Plan Update - Buildout Conditions

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	845.31	139.62	1,939.41	5.56	288.91	278.09	179,409.03

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	845.31	139.62	1,939.41	5.56	288.91	278.09	179,409.03

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	7.98	105.06	56.70	0.00	0.20	0.20	131,900.05
Hearth	342.04	33.59	1,797.25	5.56	288.48	277.66	47,371.50
Landscape	15.32	0.97	85.46	0.00	0.23	0.23	137.48
Consumer Products	369.98						
Architectural Coatings	109.99						
<b>TOTALS (tons/year, unmitigated)</b>	<b>845.31</b>	<b>139.62</b>	<b>1,939.41</b>	<b>5.56</b>	<b>288.91</b>	<b>278.09</b>	<b>179,409.03</b>

Area Source Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Build-Out Analysis\Build-Out Existing\Build-Out Existing.urb924

Project Name: General Plan Update - Buildout Conditions

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2,843.92	586.39	1,260.22	0.05	3.60	3.57	724,267.54

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2,843.92	586.39	1,260.22	0.05	3.60	3.57	724,267.54

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	43.73	575.66	310.70	0.01	1.08	1.07	722,739.98
Hearth - No Summer Emissions							
Landscape	170.20	10.73	949.52	0.04	2.52	2.50	1,527.56
Consumer Products	2,027.28						
Architectural Coatings	602.71						
TOTALS (lbs/day, unmitigated)	2,843.92	586.39	1,260.22	0.05	3.60	3.57	724,267.54

Area Source Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Area Sources\Build-Out Analysis\Build-Out Existing\Build-Out Existing.urb924

Project Name: General Plan Update - Buildout Conditions

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	11,008.33	1,550.87	44,212.38	136.66	7,049.76	6,785.73	2,077,246.47

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	11,008.33	1,550.87	44,212.38	136.66	7,049.76	6,785.73	2,077,246.47

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	43.73	575.66	310.70	0.01	1.08	1.07	722,739.98
Hearth	8,334.61	975.21	43,901.68	136.65	7,048.68	6,784.66	1,354,506.49
Landscaping - No Winter Emissions							
Consumer Products	2,027.28						
Architectural Coatings	602.71						
<b>TOTALS (lbs/day, unmitigated)</b>	<b>11,008.33</b>	<b>1,550.87</b>	<b>44,212.38</b>	<b>136.66</b>	<b>7,049.76</b>	<b>6,785.73</b>	<b>2,077,246.47</b>

Area Source Changes to Defaults



Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Vehicle Emissions\Build-Out\Vehicle Emissions - Build-Out.urb924

Project Name: General Plan Update - Vehicle Emissions - Build-Out Conditions

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	340.91	326.62	3,170.03	6.60	1,138.60	216.46	682,362.27

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	340.91	326.62	3,170.03	6.60	1,138.60	216.46	682,362.27

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## Operational Unmitigated Detail Report:

## OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Trips	340.91	326.62	3,170.03	6.60	1,138.60	216.46	682,362.27
<b>TOTALS (tons/year, unmitigated)</b>	<b>340.91</b>	<b>326.62</b>	<b>3,170.03</b>	<b>6.60</b>	<b>1,138.60</b>	<b>216.46</b>	<b>682,362.27</b>

## Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Trips		100.00	unknown	13,453.00	1,345,300.00	3,632,310.06
					1,345,300.00	3,632,310.06

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.9	0.0	100.0	0.0
Light Truck < 3750 lbs	19.1	0.0	99.0	1.0
Light Truck 3751-5750 lbs	19.7	0.0	100.0	0.0
Med Truck 5751-8500 lbs	9.3	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	1.6	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.0	32.5	67.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.2	0.0	91.7	8.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	2.7	2.7	2.7	2.7	2.7	2.7
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Trips				0.0	0.0	100.0

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Vehicle Emissions\Build-Out\Vehicle Emissions - Build-Out.urb924

Project Name: General Plan Update - Vehicle Emissions - Build-Out Conditions

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1,759.72	1,564.39	16,148.56	37.45	6,238.91	1,186.07	3,901,855.58

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1,759.72	1,564.39	16,148.56	37.45	6,238.91	1,186.07	3,901,855.58

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Trips	1,759.72	1,564.39	16,148.56	37.45	6,238.91	1,186.07	3,901,855.58
<b>TOTALS (lbs/day, unmitigated)</b>	<b>1,759.72</b>	<b>1,564.39</b>	<b>16,148.56</b>	<b>37.45</b>	<b>6,238.91</b>	<b>1,186.07</b>	<b>3,901,855.58</b>

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Trips		100.00	unknown	13,453.00	1,345,300.00	3,632,310.06
					1,345,300.00	3,632,310.06

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.9	0.0	100.0	0.0
Light Truck < 3750 lbs	19.1	0.0	99.0	1.0
Light Truck 3751-5750 lbs	19.7	0.0	100.0	0.0
Med Truck 5751-8500 lbs	9.3	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	1.6	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.0	32.5	67.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.2	0.0	91.7	8.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	2.7	2.7	2.7	2.7	2.7	2.7
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Trips				0.0	0.0	100.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Vehicle Emissions\Build-Out\Vehicle Emissions - Build-Out.urb924

Project Name: General Plan Update - Vehicle Emissions - Build-Out Conditions

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2,084.60	2,240.30	19,812.89	33.63	6,238.91	1,186.07	3,413,202.89

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2,084.60	2,240.30	19,812.89	33.63	6,238.91	1,186.07	3,413,202.89

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Trips	2,084.60	2,240.30	19,812.89	33.63	6,238.91	1,186.07	3,413,202.89
TOTALS (lbs/day, unmitigated)	2,084.60	2,240.30	19,812.89	33.63	6,238.91	1,186.07	3,413,202.89

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Trips		100.00	unknown	13,453.00	1,345,300.00	3,632,310.06
					1,345,300.00	3,632,310.06

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	39.9	0.0	100.0	0.0
Light Truck < 3750 lbs	19.1	0.0	99.0	1.0
Light Truck 3751-5750 lbs	19.7	0.0	100.0	0.0
Med Truck 5751-8500 lbs	9.3	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.5	0.0	80.0	20.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9	0.0	55.6	44.4



Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	1.6	0.0	18.8	81.2
Heavy-Heavy Truck 33,001-60,000 lbs	1.6	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.0	32.5	67.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.2	0.0	91.7	8.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	2.7	2.7	2.7	2.7	2.7	2.7
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Trips				0.0	0.0	100.0

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Construction Emissions\Construction Emissions 2010.urb924

Project Name: General Plan Update - Construction

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2010 TOTALS (lbs/day unmitigated)	328.57	210.51	388.17	0.28	1,244.89	10.52	1,255.40	260.17	9.61	269.78	41,474.97
2010 TOTALS (lbs/day mitigated)	299.11	210.51	388.17	0.28	87.93	10.52	98.45	18.55	9.61	28.16	41,474.97

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 4/1/2010-12/31/2010	<u>328.57</u>	<u>210.51</u>	<u>388.17</u>	<u>0.28</u>	<u>1,244.89</u>	<u>10.52</u>	<u>1,255.40</u>	<u>260.17</u>	<u>9.61</u>	<u>269.78</u>	<u>41,474.97</u>
Active Days: 197											
Asphalt 04/01/2010-12/31/2010	4.25	21.90	13.15	0.00	0.02	1.78	1.80	0.01	1.63	1.64	1,922.99
Paving Off-Gas	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.20	19.17	10.47	0.00	0.00	1.68	1.68	0.00	1.55	1.55	1,418.81
Paving On Road Diesel	0.16	2.62	0.81	0.00	0.01	0.09	0.11	0.00	0.09	0.09	376.71
Paving Worker Trips	0.07	0.11	1.87	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.46
Building 04/01/2010-12/31/2010	18.19	92.55	319.50	0.27	1.24	4.06	5.30	0.44	3.67	4.11	30,103.60
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	4.10	53.59	43.62	0.09	0.37	1.91	2.28	0.12	1.75	1.88	10,059.39
Building Worker Trips	10.01	15.65	261.56	0.17	0.87	0.48	1.35	0.31	0.39	0.70	17,784.93
Coating 04/01/2010-12/31/2010	294.80	0.31	5.16	0.00	0.02	0.01	0.03	0.01	0.01	0.01	350.59
Architectural Coating	294.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.20	0.31	5.16	0.00	0.02	0.01	0.03	0.01	0.01	0.01	350.59
Fine Grading 04/01/2010-12/31/2010	11.34	95.76	50.36	0.00	1,243.61	4.67	1,248.28	259.72	4.30	264.01	9,097.79
Fine Grading Dust	0.00	0.00	0.00	0.00	1,243.60	0.00	1,243.60	259.71	0.00	259.71	0.00
Fine Grading Off Road Diesel	11.19	95.53	46.62	0.00	0.00	4.66	4.66	0.00	4.29	4.29	8,842.87
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.14	0.22	3.75	0.00	0.01	0.01	0.02	0.00	0.01	0.01	254.93

Phase Assumptions

Phase: Fine Grading 4/1/2010 - 12/31/2010 - Fine Site Grading

Total Acres Disturbed: 248.74

Maximum Daily Acreage Disturbed: 62.18

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 3 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 4/1/2010 - 12/31/2010 - Paving

Acres to be Paved: 62.18

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 4/1/2010 - 12/31/2010 - Building Construction

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
- 3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/1/2010 - 12/31/2010 - Architectural Coating

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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## Construction Mitigated Detail Report:

## CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 4/1/2010-12/31/2010	<u>299.11</u>	<u>210.51</u>	<u>388.17</u>	<u>0.28</u>	<u>87.93</u>	<u>10.52</u>	<u>98.45</u>	<u>18.55</u>	<u>9.61</u>	<u>28.16</u>	<u>41,474.97</u>
Active Days: 197											
Asphalt 04/01/2010-12/31/2010	4.25	21.90	13.15	0.00	0.02	1.78	1.80	0.01	1.63	1.64	1,922.99
Paving Off-Gas	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.20	19.17	10.47	0.00	0.00	1.68	1.68	0.00	1.55	1.55	1,418.81
Paving On Road Diesel	0.16	2.62	0.81	0.00	0.01	0.09	0.11	0.00	0.09	0.09	376.71
Paving Worker Trips	0.07	0.11	1.87	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.46
Building 04/01/2010-12/31/2010	18.19	92.55	319.50	0.27	1.24	4.06	5.30	0.44	3.67	4.11	30,103.60
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	4.10	53.59	43.62	0.09	0.37	1.91	2.28	0.12	1.75	1.88	10,059.39
Building Worker Trips	10.01	15.65	261.56	0.17	0.87	0.48	1.35	0.31	0.39	0.70	17,784.93
Coating 04/01/2010-12/31/2010	265.34	0.31	5.16	0.00	0.02	0.01	0.03	0.01	0.01	0.01	350.59
Architectural Coating	265.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.20	0.31	5.16	0.00	0.02	0.01	0.03	0.01	0.01	0.01	350.59
Fine Grading 04/01/2010-12/31/2010	11.34	95.76	50.36	0.00	86.66	4.67	91.33	18.10	4.30	22.40	9,097.79
Fine Grading Dust	0.00	0.00	0.00	0.00	86.64	0.00	86.64	18.09	0.00	18.09	0.00
Fine Grading Off Road Diesel	11.19	95.53	46.62	0.00	0.00	4.66	4.66	0.00	4.29	4.29	8,842.87
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.14	0.22	3.75	0.00	0.01	0.01	0.02	0.00	0.01	0.01	254.93

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 4/1/2010 - 12/31/2010 - Fine Site Grading

For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Architectural Coating 4/1/2010 - 12/31/2010 - Architectural Coating

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Construction Emissions\Construction Emissions 2010.urb924

Project Name: General Plan Update - Construction

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2010 TOTALS (lbs/day unmitigated)	328.57	210.51	388.17	0.28	1,244.89	10.52	1,255.40	260.17	9.61	269.78	41,474.97
2010 TOTALS (lbs/day mitigated)	299.11	210.51	388.17	0.28	87.93	10.52	98.45	18.55	9.61	28.16	41,474.97

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 4/1/2010-12/31/2010	<u>328.57</u>	<u>210.51</u>	<u>388.17</u>	<u>0.28</u>	<u>1,244.89</u>	<u>10.52</u>	<u>1,255.40</u>	<u>260.17</u>	<u>9.61</u>	<u>269.78</u>	<u>41,474.97</u>
Active Days: 197											
Asphalt 04/01/2010-12/31/2010	4.25	21.90	13.15	0.00	0.02	1.78	1.80	0.01	1.63	1.64	1,922.99
Paving Off-Gas	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.20	19.17	10.47	0.00	0.00	1.68	1.68	0.00	1.55	1.55	1,418.81
Paving On Road Diesel	0.16	2.62	0.81	0.00	0.01	0.09	0.11	0.00	0.09	0.09	376.71
Paving Worker Trips	0.07	0.11	1.87	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.46
Building 04/01/2010-12/31/2010	18.19	92.55	319.50	0.27	1.24	4.06	5.30	0.44	3.67	4.11	30,103.60
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	4.10	53.59	43.62	0.09	0.37	1.91	2.28	0.12	1.75	1.88	10,059.39
Building Worker Trips	10.01	15.65	261.56	0.17	0.87	0.48	1.35	0.31	0.39	0.70	17,784.93
Coating 04/01/2010-12/31/2010	294.80	0.31	5.16	0.00	0.02	0.01	0.03	0.01	0.01	0.01	350.59
Architectural Coating	294.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.20	0.31	5.16	0.00	0.02	0.01	0.03	0.01	0.01	0.01	350.59
Fine Grading 04/01/2010-12/31/2010	11.34	95.76	50.36	0.00	1,243.61	4.67	1,248.28	259.72	4.30	264.01	9,097.79
Fine Grading Dust	0.00	0.00	0.00	0.00	1,243.60	0.00	1,243.60	259.71	0.00	259.71	0.00
Fine Grading Off Road Diesel	11.19	95.53	46.62	0.00	0.00	4.66	4.66	0.00	4.29	4.29	8,842.87
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.14	0.22	3.75	0.00	0.01	0.01	0.02	0.00	0.01	0.01	254.93

Phase Assumptions

Phase: Fine Grading 4/1/2010 - 12/31/2010 - Fine Site Grading

Total Acres Disturbed: 248.74

Maximum Daily Acreage Disturbed: 62.18

Fugitive Dust Level of Detail: Default

20 lbs per acre-day



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On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 3 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 4/1/2010 - 12/31/2010 - Paving

Acres to be Paved: 62.18

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 4/1/2010 - 12/31/2010 - Building Construction

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
- 3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/1/2010 - 12/31/2010 - Architectural Coating

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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## Construction Mitigated Detail Report:

## CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 4/1/2010-12/31/2010	<u>299.11</u>	<u>210.51</u>	<u>388.17</u>	<u>0.28</u>	<u>87.93</u>	<u>10.52</u>	<u>98.45</u>	<u>18.55</u>	<u>9.61</u>	<u>28.16</u>	<u>41,474.97</u>
Active Days: 197											
Asphalt 04/01/2010-12/31/2010	4.25	21.90	13.15	0.00	0.02	1.78	1.80	0.01	1.63	1.64	1,922.99
Paving Off-Gas	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	3.20	19.17	10.47	0.00	0.00	1.68	1.68	0.00	1.55	1.55	1,418.81
Paving On Road Diesel	0.16	2.62	0.81	0.00	0.01	0.09	0.11	0.00	0.09	0.09	376.71
Paving Worker Trips	0.07	0.11	1.87	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.46
Building 04/01/2010-12/31/2010	18.19	92.55	319.50	0.27	1.24	4.06	5.30	0.44	3.67	4.11	30,103.60
Building Off Road Diesel	4.08	23.31	14.31	0.00	0.00	1.67	1.67	0.00	1.54	1.54	2,259.28
Building Vendor Trips	4.10	53.59	43.62	0.09	0.37	1.91	2.28	0.12	1.75	1.88	10,059.39
Building Worker Trips	10.01	15.65	261.56	0.17	0.87	0.48	1.35	0.31	0.39	0.70	17,784.93
Coating 04/01/2010-12/31/2010	265.34	0.31	5.16	0.00	0.02	0.01	0.03	0.01	0.01	0.01	350.59
Architectural Coating	265.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.20	0.31	5.16	0.00	0.02	0.01	0.03	0.01	0.01	0.01	350.59
Fine Grading 04/01/2010-12/31/2010	11.34	95.76	50.36	0.00	86.66	4.67	91.33	18.10	4.30	22.40	9,097.79
Fine Grading Dust	0.00	0.00	0.00	0.00	86.64	0.00	86.64	18.09	0.00	18.09	0.00
Fine Grading Off Road Diesel	11.19	95.53	46.62	0.00	0.00	4.66	4.66	0.00	4.29	4.29	8,842.87
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.14	0.22	3.75	0.00	0.01	0.01	0.02	0.00	0.01	0.01	254.93

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 4/1/2010 - 12/31/2010 - Fine Site Grading

For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Architectural Coating 4/1/2010 - 12/31/2010 - Architectural Coating

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Construction Emissions\Construction Emissions 2030.urb924

Project Name: General Plan Update - Construction

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2030 TOTALS (lbs/day unmitigated)	307.23	74.84	110.64	0.28	1,244.89	3.86	1,248.75	260.17	3.50	263.67	41,601.61
2030 TOTALS (lbs/day mitigated)	277.77	74.84	110.64	0.28	87.93	3.86	91.79	18.55	3.50	22.05	41,601.61

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 4/1/2030-12/31/2030	<u>307.23</u>	<u>74.84</u>	<u>110.64</u>	<u>0.28</u>	<u>1,244.89</u>	<u>3.86</u>	<u>1,248.75</u>	<u>260.17</u>	<u>3.50</u>	<u>263.67</u>	<u>41,601.61</u>
Active Days: 197											
Asphalt 04/01/2030-12/31/2030	2.58	10.96	10.16	0.00	0.02	0.84	0.86	0.01	0.77	0.78	1,923.75
Paving Off-Gas	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.05	0.41	0.20	0.00	0.01	0.01	0.03	0.00	0.01	0.02	376.71
Paving Worker Trips	0.01	0.02	0.31	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.23
Building 04/01/2030-12/31/2030	3.79	21.02	67.11	0.27	1.24	1.29	2.53	0.44	1.13	1.57	30,225.85
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	1.08	8.42	12.13	0.09	0.37	0.39	0.75	0.12	0.35	0.47	10,074.88
Building Worker Trips	1.00	2.10	42.96	0.17	0.87	0.40	1.27	0.31	0.33	0.64	17,891.68
Coating 04/01/2030-12/31/2030	294.62	0.04	0.85	0.00	0.02	0.01	0.03	0.01	0.01	0.01	352.69
Architectural Coating	294.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.85	0.00	0.02	0.01	0.03	0.01	0.01	0.01	352.69
Fine Grading 04/01/2030-12/31/2030	6.24	42.82	32.52	0.00	1,243.61	1.73	1,245.34	259.72	1.59	261.31	9,099.32
Fine Grading Dust	0.00	0.00	0.00	0.00	1,243.60	0.00	1,243.60	259.71	0.00	259.71	0.00
Fine Grading Off Road Diesel	6.23	42.79	31.90	0.00	0.00	1.72	1.72	0.00	1.58	1.58	8,842.87
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.01	0.03	0.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.46

Phase Assumptions

Phase: Fine Grading 4/1/2030 - 12/31/2030 - Fine Site Grading

Total Acres Disturbed: 248.74

Maximum Daily Acreage Disturbed: 62.18

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 3 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 4/1/2030 - 12/31/2030 - Paving

Acres to be Paved: 62.18

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 4/1/2030 - 12/31/2030 - Building Construction

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
- 3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/1/2030 - 12/31/2030 - Architectural Coating

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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## Construction Mitigated Detail Report:

## CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 4/1/2030-12/31/2030	<u>277.77</u>	<u>74.84</u>	<u>110.64</u>	<u>0.28</u>	<u>87.93</u>	<u>3.86</u>	<u>91.79</u>	<u>18.55</u>	<u>3.50</u>	<u>22.05</u>	<u>41,601.61</u>
Active Days: 197											
Asphalt 04/01/2030-12/31/2030	2.58	10.96	10.16	0.00	0.02	0.84	0.86	0.01	0.77	0.78	1,923.75
Paving Off-Gas	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.05	0.41	0.20	0.00	0.01	0.01	0.03	0.00	0.01	0.02	376.71
Paving Worker Trips	0.01	0.02	0.31	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.23
Building 04/01/2030-12/31/2030	3.79	21.02	67.11	0.27	1.24	1.29	2.53	0.44	1.13	1.57	30,225.85
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	1.08	8.42	12.13	0.09	0.37	0.39	0.75	0.12	0.35	0.47	10,074.88
Building Worker Trips	1.00	2.10	42.96	0.17	0.87	0.40	1.27	0.31	0.33	0.64	17,891.68
Coating 04/01/2030-12/31/2030	265.16	0.04	0.85	0.00	0.02	0.01	0.03	0.01	0.01	0.01	352.69
Architectural Coating	265.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.85	0.00	0.02	0.01	0.03	0.01	0.01	0.01	352.69
Fine Grading 04/01/2030-12/31/2030	6.24	42.82	32.52	0.00	86.66	1.73	88.38	18.10	1.59	19.69	9,099.32
Fine Grading Dust	0.00	0.00	0.00	0.00	86.64	0.00	86.64	18.09	0.00	18.09	0.00
Fine Grading Off Road Diesel	6.23	42.79	31.90	0.00	0.00	1.72	1.72	0.00	1.58	1.58	8,842.87
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.01	0.03	0.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.46

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 4/1/2030 - 12/31/2030 - Fine Site Grading

For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Architectural Coating 4/1/2030 - 12/31/2030 - Architectural Coating

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%



Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: U:\Projects\Chico General Plan Update\Work Product\CEQA\Air Quality\Chico\Appendix Data\Construction Emissions\Construction Emissions 2030.urb924

Project Name: General Plan Update - Construction

Project Location: Feather River AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2030 TOTALS (lbs/day unmitigated)	307.23	74.84	110.64	0.28	1,244.89	3.86	1,248.75	260.17	3.50	263.67	41,601.61
2030 TOTALS (lbs/day mitigated)	277.77	74.84	110.64	0.28	87.93	3.86	91.79	18.55	3.50	22.05	41,601.61

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 4/1/2030-12/31/2030	<u>307.23</u>	<u>74.84</u>	<u>110.64</u>	<u>0.28</u>	<u>1,244.89</u>	<u>3.86</u>	<u>1,248.75</u>	<u>260.17</u>	<u>3.50</u>	<u>263.67</u>	<u>41,601.61</u>
Active Days: 197											
Asphalt 04/01/2030-12/31/2030	2.58	10.96	10.16	0.00	0.02	0.84	0.86	0.01	0.77	0.78	1,923.75
Paving Off-Gas	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.05	0.41	0.20	0.00	0.01	0.01	0.03	0.00	0.01	0.02	376.71
Paving Worker Trips	0.01	0.02	0.31	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.23
Building 04/01/2030-12/31/2030	3.79	21.02	67.11	0.27	1.24	1.29	2.53	0.44	1.13	1.57	30,225.85
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	1.08	8.42	12.13	0.09	0.37	0.39	0.75	0.12	0.35	0.47	10,074.88
Building Worker Trips	1.00	2.10	42.96	0.17	0.87	0.40	1.27	0.31	0.33	0.64	17,891.68
Coating 04/01/2030-12/31/2030	294.62	0.04	0.85	0.00	0.02	0.01	0.03	0.01	0.01	0.01	352.69
Architectural Coating	294.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.85	0.00	0.02	0.01	0.03	0.01	0.01	0.01	352.69
Fine Grading 04/01/2030-12/31/2030	6.24	42.82	32.52	0.00	1,243.61	1.73	1,245.34	259.72	1.59	261.31	9,099.32
Fine Grading Dust	0.00	0.00	0.00	0.00	1,243.60	0.00	1,243.60	259.71	0.00	259.71	0.00
Fine Grading Off Road Diesel	6.23	42.79	31.90	0.00	0.00	1.72	1.72	0.00	1.58	1.58	8,842.87
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.01	0.03	0.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.46

Phase Assumptions

Phase: Fine Grading 4/1/2030 - 12/31/2030 - Fine Site Grading

Total Acres Disturbed: 248.74

Maximum Daily Acreage Disturbed: 62.18

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day
- 3 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 4/1/2030 - 12/31/2030 - Paving

Acres to be Paved: 62.18

Off-Road Equipment:

- 1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day
- 2 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 4/1/2030 - 12/31/2030 - Building Construction

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day
- 3 Forklifts (145 hp) operating at a 0.3 load factor for 8 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/1/2030 - 12/31/2030 - Architectural Coating

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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## Construction Mitigated Detail Report:

## CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 4/1/2030-12/31/2030	<u>277.77</u>	<u>74.84</u>	<u>110.64</u>	<u>0.28</u>	<u>87.93</u>	<u>3.86</u>	<u>91.79</u>	<u>18.55</u>	<u>3.50</u>	<u>22.05</u>	<u>41,601.61</u>
Active Days: 197											
Asphalt 04/01/2030-12/31/2030	2.58	10.96	10.16	0.00	0.02	0.84	0.86	0.01	0.77	0.78	1,923.75
Paving Off-Gas	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.70	10.53	9.66	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,418.81
Paving On Road Diesel	0.05	0.41	0.20	0.00	0.01	0.01	0.03	0.00	0.01	0.02	376.71
Paving Worker Trips	0.01	0.02	0.31	0.00	0.01	0.00	0.01	0.00	0.00	0.00	128.23
Building 04/01/2030-12/31/2030	3.79	21.02	67.11	0.27	1.24	1.29	2.53	0.44	1.13	1.57	30,225.85
Building Off Road Diesel	1.71	10.50	12.03	0.00	0.00	0.50	0.50	0.00	0.46	0.46	2,259.28
Building Vendor Trips	1.08	8.42	12.13	0.09	0.37	0.39	0.75	0.12	0.35	0.47	10,074.88
Building Worker Trips	1.00	2.10	42.96	0.17	0.87	0.40	1.27	0.31	0.33	0.64	17,891.68
Coating 04/01/2030-12/31/2030	265.16	0.04	0.85	0.00	0.02	0.01	0.03	0.01	0.01	0.01	352.69
Architectural Coating	265.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.85	0.00	0.02	0.01	0.03	0.01	0.01	0.01	352.69
Fine Grading 04/01/2030-12/31/2030	6.24	42.82	32.52	0.00	86.66	1.73	88.38	18.10	1.59	19.69	9,099.32
Fine Grading Dust	0.00	0.00	0.00	0.00	86.64	0.00	86.64	18.09	0.00	18.09	0.00
Fine Grading Off Road Diesel	6.23	42.79	31.90	0.00	0.00	1.72	1.72	0.00	1.58	1.58	8,842.87
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.01	0.03	0.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	256.46

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Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 4/1/2030 - 12/31/2030 - Fine Site Grading

For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stabilizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Architectural Coating 4/1/2030 - 12/31/2030 - Architectural Coating

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

